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ORIGINAL ARTICLES

USE OF INDWELLING URETERAL CATHETER*

A CLINICAL STUDY[1]

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For some years urologists have been allowing a ureteral catheter to remain in a patient's ureter for hours or days to overcome obstructive and inflammatory conditions of the upper urinary tract. In consulting and hospital work the specialist cannot but gain the impression that men working in other fields do not fully appreciate the value of this procedure. On the other hand, the general medical man has the feeling that the technical procedures of the specialist are grossly overestimated by their devotees, and view their methods with the same suspicion that is aroused by a sleight of hand performance. Both realize that in the heat and enthusiasm of work men do not check up on the actual results of their efforts and are too prone to be overoptimistic. Therefore I hastened to accept the invitation of our President to speak on this subject as a means of evaluating the procedure in my own mind and as an opportunity of discussing it with you.

The object of using the indwelling ureteral catheter is three fold. In the first place, it assures constant mechanical drainage of urine from the kidney pelvis, irrespective of the basic pathology. In the second place, it puts the pelvis and ureter to rest, splinting them in the same way that the indwelling urethral catheter quiets the bladder. Thirdly, it permits the frequent application of antiseptics directly to the mucous membranes of ureter, pelvis, and, in rare instances, to abscess cavities in the kidney substance.

A cystoscopy is done, during which a special golf-leaf-coated catheter, of the largest possible size, is passed preferably to the pelvis of the diseased kidney or kidneys. If possible the size used is Fr No. 8, 9, 10 or 11. The cystoscope is removed, leaving the catheter in place, just as in constant uretheral drainage, rubber tubing leading to a bedside bottle is thrust over the protruding end of the catheter. If the procedure is technically correct, the urine, as it is produced, flows immediately out through the catheter and no collection or retention of urine occurs in the pelvis or ureter. The ureteral peristalis is normally dependent on distention of the kidney pelvis as its stimulus; as this does not occur the ureter as well as the pelvis is entirely freed of muscular activity. One would imagine that the presence of a catheter, even as small as the largest size used in the ureter, would considerably interfere with micturition. But this does not seem to be the case. In two cases indwelling urethral catheters were also used because of the pain in grossly infected bladders. Of the others only one had to have the bladder catheterized because of inability to void around the ureteral drain. The success of the whole procedure depends upon actually achieving and maintaining a free flow of the kidney urine. This requires careful attention to the catheter to prevent slipping or plugging. It, therefore, should be a hospital procedure where nurses are familiar with the care of the catheter; or if used in a patient's home, a nurse trained in the procedure should be in attendance.

To give a clear idea of the indications for and the results to be expected from the use of the indwelling ureteral catheter, it seems wiser to review actual cases rather than present a theoretical discussion or rehash the literature. For this purpose all the cases have been collected in which indwelling catheters were used on patients seen by me on the Urological Service of the Providence City Hospital, as consultant at the Providence Lying-In Hospital or in private practice since 1927. Thirty-five such cases were found, thirty occurring within the last eighteen months.

Even at first glance it became obvious that they fell into two distinct groups. In fifteen the chief object of treatment was the relief of obstructive

*Read before the Rhode Island Medical Society, December 3, 1931.

[1]From the Urological Service, Providence City Hospital.

pathology of the upper urinary tract; and in twenty it was the treatment of infection of the ureters or kidneys. The predominant cause was clear cut but the groups somewhat overlapped as infection may supervene in originally simple ureterosis or hydronephrosis; and, for instance, in pyelitis of pregnancy there is always a certain degree of dilatation and urinary stasis of the upper two-thirds of the ureter. The two major groups may be further subdivided, presenting the following classification.

I Obstructive Lesions (15 Cases)	
A. Stricture of the Ureter (4)	
1. Traumatic	1 case
2. Inflammatory	2 cases
3. External Pressure (4 Cases)	1 case
B. Neurogenic Origin (4 Cases)	
1. Spina bifida	2 cases
2. Reflex ureteral spasm	2 cases
C. Calculi (4 Cases)	
1. Ureteral	1 case
2. Pelvic	3 cases
D. Renal Ptosis	3 cases
II Inflammatory Lesions (20 Cases)	
A. Uretero-and Pyelonephrosis	1 case
B. Pyelitis	6 cases
C. Pyelitis of Pregnancy	13 cases

In each instance resort was had to this therapy because of the severity of the pain or infection. In fourteen cases the patient was sufficiently ill to be on the "D.L." of the hospital and six were in coma or precomatous states when first seen.

The incidence of applicability is as follows. The method was used in six of fifty-six cases of pyelitis treated during the period under consideration; in thirteen of seventy-four cases of pyelitis of pregnancy; in two of thirty-nine cases of calculi; and in three of fourteen cases of hydronephrosis.

Ureteral Stricture

One of the cases of ureteral stricture (A. F., ♂, 16 yrs., No. 1286) was traumatic, and although palliated by dilatation after four years developed recurrent attacks of acute hydronephrosis at increasingly frequent intervals with a steady decrease in kidney function. The chief symptom was severe kidney pain and in each attack there was complete relief within three minutes of ureteral catheterization. In the last attack infection with a high temperature was a predominate feature. The pain was relieved by merely inserting a ureteral catheter; but after six days in which the temperature showed no response to medical treatment, the indwelling catheter was used followed by a drop to normal in fifty-four hours. Nephrectomy was done before there was an opportunity for further attacks.

Two cases were the result of inflammatory lesions about the lower ureter. In one (A. D., ♂, 43 yrs., No. 1954) the source was a left seminal vesiculitis involving the ureter which led to a solitary kidney, its fellow having been removed many years before. The patient was in a precomatose state, had passed no urine in twenty-four hours and had severe left kidney pain. The kidney pain was relieved immediately on introduction of the ureteral catheter, a large amount of urine was drained within an hour followed by twenty-four hours of anuria, when function returned. The catheter was removed in six days and, to date, two years later, there has been no recurrence. It might be pointed out that previous to the development of this technique the patient would have been subjected to a major surgical procedure with its prolonged period of convalescence. The other case (H. W., ♀, 23 years, Homeo. No. 29621) was due to right pelvic inflammation. She ran a prolonged and stormy course with many exacerbations of renal pain and high fever. Each time the acute attack was aborted by the use of the indwelling catheter. This with pelvic treatment and fifteen dilatations and lavages of the renal pelvis eventually resulted in cure. There have now been no symptoms in seven months.

The fourth stricture case (E. B., ♂, 62 yrs., No. 1613) was due to obliteration of the right ureter by a mass of infected iliac glands. There was reflex anuria on the second day on which, it being found impossible to pass a catheter to the right pelvis, a nephrostomy was done. At the same time a catheter was passed to the left pelvis. The morning of the fifth post-operative day urine appeared for the first time, an ounce draining from the ureteral catheter before the patient's death about noon.

Neurogenic Obstruction

Two cases of spina-bifida occurred in this series. H. C., ♂, 23 yrs., No. 2204, was first seen in coma, all his life he had been incontinent, with rare periods of retention, and had had many attacks of hydronephrosis. The coma was relieved by the use

of the indwelling catheter and many subsequent attacks were aborted by this method. They however were recurring with increasing frequency and severity so that it was finally decided to provide him with permanent suprapubic drainage; and because of the hypertrophy of the muscles of the base of the bladder and lower ureters, a bilateral ureteral transplant into a portion of the bladder with normal walls was to be done. At operation dense cones of muscle 1½ in. long by ¾ in. in diameter were found surrounding the entrance of either ureter into the bladder. The transplants were done and indwelling ureteral catheters were placed and left in position for a week. At no time was there any seepage of urine from the sites of the drains passed to the points of transplantation. The kidney function was not reduced. He was allowed up on the eighteenth day; but severe cardiac symptoms were immediately manifest and he was returned to bed. Nine days later he died a cardiac death with a decrease of urinary output only in the last thirty-six hours. He had no hydronephrotic attacks during his post-operative period, which was the longest time he had been free of them in five or six years.

The other case of spina bifida (T. D., ♀, 3 yrs., No. 2132) entered the hospital in coma with a history of incontinence alternating with retention, frequent attacks of pain in one or both kidneys and a low grade temperature of many months duration. Indwelling bilateral catheters were left in place for four days, with a return of full mental alertness on the third day, and normal temperature (for the first time in months) on the fourth day. For three months her health remained better than at any time in her life. However she had a sudden return of symptoms, for which she was treated medicinally, and died in two weeks.

One of the cases of obstruction due to reflex ureteral spasm (G. F., ♀, 24 yrs., No. 481) had had numerous attacks of left renal pain, sometimes three in a fortnight, each immediately broken up before she left the table on the insertion of ureteral catheters that were removed as soon as the retained urine had been drawn off. Several were associated with tonsilitis and the severest with diphtheria. In these pyelitis was a complicating factor; and the indwelling catheter was used. In a typical attack of this kind drainage was established on the fourth day with relief of pain in ten hours and a normal temperature in twenty-four. Eventually a mass was made out in the left lower quadrant just within the anterior abdominal wall; and on operation (Dr. Herman Pitts) inter-intestinal abscess was found consisting of a fishbone floating in fifteen c.c. of sterile pus. This was followed by almost complete relief, inasmuch as there has been but one attack in the past three years, that being a non-inflammatory complication of a severe quinsy sore throat six months ago. Another case (A. B., , 45 yrs., No. 2512) was admitted for extreme left kidney pain. It was relieved within six hours of the onset of drainage and she was then found to have a herpes zoster of the third left dorsal nerve. Further examination showed the urinary tract to be completely normal and with the improvement in the dorsal root neuritis there has been no recurrence of the ureteral spasm.

Calculi of the Urinary Tract

In but one case (R. S., ♀, 32 yrs., No. 1261) of ureteral stone was prolonged drainage found necessary. This gave prompt relief of pain and temperature and, in order to reduce infection, was continued during the four days preceding operation. An oval stone 2½ x 2 c.c. was removed from the lower third of the left ureter. The catheter was allowed to remain in place for the first four post-operative days, and the wound healed without the leakage of any urine whatsoever. In two cases (R. di L., ♀, 38, No. 2341, and R. M., ♂, 24 yrs., No. 2481) catheters were inserted cystoscopically at the time of pyelotomy for large pelvic calculi. The first patient was discharged in eighteen days and the other in sixteen days with the wounds entirely healed by first intention, having had at no time any escape of urine from the wound. These cases are in pleasant contrast to the frequent persistent urinary sinuses that used to be a corollary of invasion of the renal pelvis or ureter.

A fourth calcus case (J. P., ♀, 48 yrs., No. 2255) was admitted, apparently moribund, following the sudden onset of left renal pain, and a week of incessant vomiting and high fever. She was immediately cystoscoped and a non-function kidney full of pus and calculi was found. The catheter was left in place, the pain and vomiting ceased the same day, and the temperature became normal in twenty-four hours. Nephrectomy was to have been done, but the patient felt so well that she refused operation, and was discharged against advice.

Renal Ptosis

This method of treatment was used in three cases of renal ptosis. The indications for more prolonged

drainage than usual were a definite kink of the ureter in each instance, a history of unremitting pain for months or the severity of the existing attack. Two cases (C. B., ♀, 66 yrs., No. 3921), and M. L., ♀, 23 yrs., No. 1623) present the last symptom. They were both immediately relieved of pain; but the catheters were left in place to reduce the congestion and tissue hypertrophy present at the point of obstruction. The first patient was relieved by one treatment to the extent that no recurrence took place during the subsequent eight months and since then she has been lost to observation. In the second, recurrences led to a nephropexy followed by freedom from symptoms up to the present time, i. e., eighteen months. The third patient (M. B., ♀, 58 yrs., No. 2470) had had no acute attacks, but had complained of a constant dull pain in the right upper quadrant with gastro-intestinal symptoms for six months. Gastro-intestinal and gall-bladder studies had proved negative and a urological examination was requested. This demonstrated right ptosis and because of the definite kink and length of morbidity the catheter was left in place twelve hours. Despite the fact that a pyelogram had been made, which usually causes pain, the ache had gone before the catheter was removed. The gastro-intestinal symptoms abated, then disappeared and, with the aid of a belt and pad, there has been no return of trouble; however, only a month and a half has elapsed.

In evaluating this procedure in this type of case it must not be forgotten that the urologist is not infrequently pleasantly surprised by noting a disappearance of symptoms following the comparatively short period of drainage necessitated in the preliminary diagnostic catheterization.

Uretero-and Pyelo-Nephritis and Nephrosis

Although three cases of this series presented marked dilatation of both ureters and both pelvises with gross infection throughout, two were discussed under "spina bifida." The third (H. S., ♀, 62 yrs., No. 1642) presented no demonstrable cause except a bilateral descending infection of many years standing. Although under constant treatment for three years, including many lavages of the renal pelvises, she nevertheless, had three or four acute exacerbations, with high fever and renal pain, usually involving the right side. If draining properly the indwelling catheter always aborted the attack, as for example in her last in which after a temperature of 102°-103° for four days with no relief by medicinal measures a catheter was inserted. The temperature peak the next day was 101° and the following day it was 98.6°. It remained normal during the third day, on which the catheter was removed. The removal was followed by the typical brief rise, in this case higher than usual, i. e., 101°. But within twenty-four hours it was again normal, and remained so for three days. The pain had been relieved within the first twelve hours and did not reappear. Unfortunately on the fourth day after removal of the catheter the patient became jaundiced and acutely ill. A consultant concurred in the diagnosis of acute hepatitis and advised the use of a duodenal tube. Despite this the patient died the next day.

Pyelitis

Six cases of pyelitis were deemed sufficiently ill to require the form of treatment under discussion. Three were uncomplicated (M. P., ♀, 22 yrs., No. 1072; E. H., ♀, 27 yrs., No. 1634; and M. A., ♀, 1 yr., No. 2357). These all did remarkably well under this form of treatment. They averaged twenty-six days of renal pain previous to drainage; and in each case relief was experienced within twenty-four hours. The temperature peak averaged 103° daily for the preceding 12.6 days. They averaged a return to normal temperature in three days; which is in distinct contrast to the prolonged see-sawing return to normal usual in average medically treated case. One (M. A.) was in coma when cystoscoped and was discharged on the eighth post-cystoscopy day. None have had recurrence in two, six, and fourteen months of further observation.

In one case (R. S., ♀, 38 yrs., No. 2502) the pyelitis involved the upper pole of a large kidney with double pelvis and bifid ureter. There was a marked ureteritis of the single portion of the Y-shaped ureter. Here pain was relieved within six hours and the temperature was normal in 48; but there was a recurrence two days after the removal of the catheter, necessitating twenty-four hours of further drainage. Two days later there was a slight recurrence of pain and temperature. No further exacerbations required drainage. Last week the upper segment of the kidney with its pelvis and ureter were removed by heminephrectomy.

Another patient (M. W., ♀, 4 yrs., No. 2294) developed a pyelitis. She was a chronic nephritic

who had had a ruptured appendix removed six weeks previous to the pyelitic attack. The only apparent deleterious effect of the nephritic background was a mild recurrence responding readily to medical treatment two weeks after her prompt response to drainage.

The sixth case (M. T., ♀, 2 mos., No. 2376) appeared to have and did in fact have a pyelitis. For four weeks the temperature had never been lower than 102° and had reached 103°-104° daily. For twenty-four hours following the insertion of No. 4 catheters bilaterally, the temperature did not go above 101°. However, because of the small size of the catheters, they became obstructed and had to be removed. There was an immediate rise of temperature to the old level. It became steadily higher and her temperature steadily worse. On autopsy acute bronchopneumonia and bilateral multiple cortical abscesses were found. It is conceivable that if drainage had been successfully instituted much earlier in the course of the disease that the development of frank cortical abscess might have been prevented and a happier outcome attained.

Pyelitis of Pregnancy

Thirteen cases were treated by indwelling catheters[2]. Of these, three proved to have complicating factors and will be discussed later. The balance[3] after study of histories and charts ran courses that may be summed in the figres in Table I.

TABLE I

(*Morbidity of Cases Treated by Drainage*)

Previous pain	17.7 days	Extremes	3-60 days
Previous temperature	15.2 "	"	6-36 days
Relief of pain	1.2 "	"	6 hrs.-3 days
Normal temperature	2.4 "	"	1-4 days

For purposes of comparison the Providence Lying-In Hospital's records were searched for cases as severely ill as the above which were treated medically. Eight were found. A point was found, as near as could be told from a study of the temperature charts, laboratory reports and bedside notes, at which the patient was at approximately the same point in the course of the disease as the first group were at the time drainage was instituted. This point furnishes the base for "previous days" and "days to relief of pain," etc. These statistics appear in Table II.

TABLE II

(*Morbidity of Medically Treated Cases*)

Previous pain	18.5 days	Extremes	6-42 days
Previous temperature	19.0 "	"	6-40 days
Relief of pain	9.0 "	"	5-21 days
Normal temperature	14.5 "	"	7-32 days

Comparing the two tables we find a reduction in total morbidity expressed in days in Table III.

TABLE III

(*Reduction in Morbidity by Use of Drainage*)

Days to relief of pain	7.8
Days to Normal Temperature	12.1

In one case (H. C., ♀, 21 yrs., P. L.-I. No. 4003) of pyelitis of pregnancy there was a known ptosis of the left kidney. When she became pregnant she passed through to delivery without trouble but developed pain and fever on the twelfth day of the puerperium. A catheter was passed to the pelvis on the fourth day of the attack. The pain had gone before she left the cystoscopy table and the temperature became permanently normal on the second day. Thus, in this case the complication did not seem to interfere with the patient's response to the treatment. However, in the year that has passed since her confinement she has had three hydronephrotic attacks, each relieved by simple catheterization with emptying of the sac by leaving the tube in place twenty minutes to half an hour.

A second patient (P. L.-I. No. 11295, 32 yrs.) had a bilateral ptosis with some dilatation of both ureters. Before delivery she required the insertion of catheters twice. And three times in four weeks drainage was done after delivery. The right kidney was then suspended and there has been no recurrence in the three months which have elapsed since the suspension was done.

Another case (P. L.-I., 28 yrs., No. 7214) appeared to be a simple pyelitis of pregnancy. She was admitted in semi-comatose, irrational state with a temperature of 104°. Catheters were inserted on the fifth hospital day. The temperatures dropped from 103° to 101° as peaks for the two days the catheter was in place, and the day of removal fell to normal. By this time she was rational. Her condition was excellent and the temperature remained normal for six days, when she was delivered of a full term, normal baby. The

[2]Nos. 2111, 2051, 1677, 462, 443, 1693, Providence Lying-In Hospital Nos. 10930, 8654, 62673, 44754.

[3]Providence Lying-In Hospital, Nos. 4020, 5074, 5936, 6053, 6605, 6692, 7472 and B727.

day after delivery there was a sudden rise of temperature to 103° and two days later to 104°. She was transferred to the Rhode Island Hospital and again a catheter was placed, with a drop of temperature from 104° to 100°; but the catheter became plugged and had to be removed within twenty-four hours, and on its removal the temperature rose to 105°. At the first cystoscopy at the Rhode Island Hospital a right-sided pelvic calculus was demonstrated. Following this last rise of temperature there was complete anuria and rapidly developing coma. Again catheters were inserted, this time in the left pelvis, and four hourly hot boric lavages were given as an adjunct to the usual medical treatment of coma. The blood urea nitrogen rose to 65 m.gm. per 100 c.c. of blood and the creatinine to 2.2 m.gm., and she died eleven days after delivery and in the third day of the last attempt at drainage.

Conclusions

The use of the indwelling catheter is advocated in certain severe cases of upper urinary tract infection or mechanical obstruction or in cases where the two may be in combination. It might prove of even greater value if the appropriate cases were seen earlier. In judging the worth of the procedure it must be remembered that the majority of the above cases were seen rather late in the disease and not until they were critically ill.

A study of the cases presented in this paper leads to the following conclusions.

This method is, I, merely palliative in

- A. Gross bilateral urinary tract infection where there is dilatation of pelvises and ureters.
- B. Ptosis with marked hydronephrosis.
- C. Reflex spasm of the ureter.

II of doubtful value in reflex anuria.

III of great value in lessening the incidence of persistent urinary sinus formation after operations on the kidney pelvis or ureter.

IV is curative and particularly indicated in

- A. uncomplicated pyelitis or pyelitis of pregnancy.
- B. Stricture of the ureter (in which cases the procedure must be repeated frequently).

PSYCHIATRIC ASPECTS OF MEDICAL DISEASE*

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During the brief period in which I have had charge of the Psychopathic Department at the Providence City Hospital, I have been impressed by the frequency of mental disease complicating physical illnesses and of the reverse condition. This impression has been so strong that it has determined the title of this paper in which I hope to bring out some features of interest to the general medical practitioner, surgeons, and others of the medical profession. One can not hope to cover the entire field of medicine in its psychiatric aspects, nor can one hope to do more than merely scratch the surface of this large subject. With so much material, however, collected over a brief period, it strikes me that there is a message in our findings for those who are interested in general human ailments. I have thought it best to present some of the more outstanding psychiatric aspects found in the commoner physical diseases, with the report of cases rather than attempting an abstruse discussion of the subject. All of the cases reported are taken from the records of our department at the City Hospital.

This association of mental and physical diseases is not to be wondered at, for psychiatry after all is a medical specialty and the psychiatrist is supposedly an individual well grounded in general medicine with a bit more experience in mental diseases than the average physician. This, unfortunately, is not always true, for the organization of institutional psychiatry in this country has a tendency to take the psychiatrist away from the physical problems of his patients until in some cases he becomes almost entirely divorced from anything of a medical nature. This is brought about by the organization of larger mental hospitals where a special hospital department is maintained for physically ill patients, and manned by internists, surgeons, and so forth. In these places, the patients are already suffering from a fundamental mental disease so that the diagnosis of psychosis with somatic disease is infrequently made. However, the type of case which we see at the City Hospital Psychopathic Depart-

*Read before the Rhode Island Medical Society at Butler Hospital, Providence, R. I., September 3, 1931.

ment is somewhat different from the usual institutional case and this is determined by the type of hospital. Naturally, we see more of this group of psychosis with somatic disease and it is the one division of psychiatry which is of most interest to the general practitioner and the one with which he has to contend constantly in his practice.

In looking over the classification of mental diseases, one wonders just what belongs to psychiatry and what to general medicine. Certainly, these mental illnesses resulting from physical disease are of prime importance to the general practitioner but, on the other hand, we find such conditions as drug intoxications, acute chorea, and so forth, which are of equal importance to all physicians. I also do not know of any group of diseases which requires more medical diagnostic acumen than the psychoneuroses and one does not now so often see medical ignorance parading around under the cloak of neurasthenia, with the increase in knowledge of psychiatry and the improvements in methods of general medicine. Possibly the psychogenic psychoses, dementia praecox, and so forth, belong strictly to the psychiatrist, but even then we find stages in paranoid conditions, for example, when the symptomatology is purely physical and one not infrequently sees the surgeon operating upon a somatic delusion only to have a frank psychosis occur during the convalescent period. In view of this brief consideration and of the cases which I am to report, it is felt that the psychiatrist should be sufficiently well grounded in general medicine to recognize his own limitations and that the physician and surgeon should likewise be equally familiar with psychiatry to see the manifestation of mental diseases as they involve his particular field.

We have not succeeded, certainly, in delimiting the field of medicine as it involves any specialty and for our present purpose as it involves psychiatry. It is only experience which will teach us where to hesitate and begin to ask for help from our fellow practitioner. Before leaving the subject, we can not avoid the question of the role which the general hospital plays in the treatment of patients suffering from a mental illness partly or wholly occasioned by physical disease. Before psychiatry received so much recognition, the quality of which however remains superficial, a patient with uremic coma was simply a patient with uremic coma. Now the psychiatrist comes in consultation and applies a technical diagnosis of psychosis with somatic disease or which means considerably less, because it includes a large part of the whole field of psychiatry, the none too clear diagnosis of toxic organic psychosis. The general hospital authorities feel that they no longer want to care for a patient who is suffering from a mental disease although the condition as such is, in the majority of cases, strictly a medical problem.

A case in point is that of A. C., female, white, age 68 years, married, admitted to the hospital by transfer from another local hospital on December 31, 1930, with a diagnosis of toxic organic psychosis. On admission she had a temperature of 101° F. per rectum, and was in a semi-comatose condition. A blood chemistry performed the following morning revealed a sugar of 420, NPN 75, creatinine 1.7, and the urine was loaded with pus cells. The only evidence of a psychosis present was the disturbance of consciousness which one finds in all cases of coma. January 2, she was transferred to the medical service, where her protein retention increased and she died of a complicating myocarditis January 19, 1931.

The only way in which these problems can be settled is to study the patient thoroughly both from a mental and physical standpoint and place him in an institution where his interests will best be served. Not every case of pneumonia with delirium belongs in a mental hospital, even though they are suffering from a psychosis with somatic disease.

Having discussed briefly the extent, limitations, and overlapping of psychiatry and general medicine, we return to the group of mental diseases which are dependent in whole or in part upon a physical disease for their etiology. It is important to know where these cases should be cared for, what should be done for them, and to what extent the complication of a psychosis affects the prognosis. Sometimes these points can be settled by the general practitioner and at other times they belong distinctly in the domain of the psychiatrist. To take up the last point first, I do not believe that we can make any definite statement as to the effect of a complicating mental illness on the prognosis of any given disease except that disturbed conditions, excitements, and so forth, which are not easily controlled, are almost invariably of bad prognostic omen. We have found this particularly true in acute pulmonary conditions. The reason is fairly obvious when under such circumstances we are attempting to preserve the patients strength and relieve the

myocardium of any unnecessary strain. Excitements defeat this purpose. I recall particularly a case of bronchopneumonia with a fatal termination.

C. B., female, white, married, age 38 years, admitted February 3, 1931, with the statement that she had been ill with pneumonia since January 23 following an attack of influenza. Five days after the onset of the pneumonia, she began to show mental symptoms, became noisy, talkative, violent, refused medication, and would not remain in bed. It was impossible to care for her at home and she was transferred to the hospital. She continued in this same state after admission, screaming, cursing, refusing medication, talking and singing continuously, and would not remain in bed. The laboratory examinations showed a protein retention with urinary findings of an acute nephritis and an acidosis. The blood chemistry returned to normal four days after admission. This result was attributed to hydrotherapy, since the nephritis continued. Efforts to control the excitement by drugs and hydrotherapy were unsuccessful and the temperature ranged, during the stay, from 99° to 107° F. (rectal). February 14, her condition merged into a semi-stuporous one from which she never roused and died four days later.

There was no question but that this patient belonged in a mental hospital with facilities for medical care as well. It does illustrate, however, the futility of any kind of treatment in some cases of excitement although the efforts are certainly justifiable.

A type of case which is particularly confusing to the general practitioner is the one in which a physical disease is masked by mental symptoms. In overwhelming infections, where the prognosis is poor, and this type of disease is notoriously malignant, we may have a delirium preceding the febrile period. These cases are not common, but where they do occur they are rapidly fatal. The two most important conditions which may be obscure are those where the mental illness due to a physical disease is in the foreground or where we get coincidental physical illness superimposed upon a fundamental psychosis. For this reason, we particularly caution our staff at the City Hospital to be on the lookout for any evidence of physical disease, even though we are convinced that the mental illness is purely of psychogenic origin. In addition to simply observing the patients, each one of them is seen by a member of the consulting medical staff and all physical diagnostic problems are left in his hands. Other examinations of a special nature are performed by men trained in that particular field. Our survey of the patient is physical and social as well as mental in our efforts to treat the individual as a whole, and in this way conditions are uncovered which under ordinary circumstances are far from obvious. There are two cases in the series which illustrate the value of such a procedure and which serve as warning signs to the general practitioner not to be misled by the presence of delusions, incoherence, and so forth.

J. L., male, colored, married, age 68 years, walked into the hospital November 21, 1930, with the information from his physician that he had been drinking excessively and "talking out of his head" for the past two days. The patient himself admitted excessive drinking up to a week prior to admission and hiccups for the previous two days. He showed no obvious evidence of a psychosis at the time of admission, but there was some question as to whether he might not be alcoholic or syphilitic, as he appeared to be physically ill. Routine admission procedures, however, revealed a temperature of 102° F. and on physical examination it was found that he had a left lower lobar pneumonia. His recovery was uneventful except that he was delirious with temperatures above 103° which was probably the cause of his "talking out of his head." The physical condition had apparently been entirely overlooked.

The second case is that of L. R., female, white, single, age 68 years, who was admitted by physician's certificate on June 15, 1931, with the statement that her mental illness had started June 13, 1931, when she had become irrational and could no longer be cared for at home. She was brought in on a stretcher and at the time had a temperature of 104°, due apparently to an acute pulmonary condition which soon subsided. She showed some memory and orientation defects, distractability and facetiousness, later developing a suspicious, irritable attitude. Physical examination showed a lemon-yellow tint to the skin, a marked anemia, and neurological evidence of a combined sclerosis. Laboratory examinations revealed absence of free hydrochloric acid in the gastric contents, a R.B.C. of 2,500,000, hemoglobin 75%, C.I. 1.5. She was placed on liver extract and discharged as improved mentally and physically sixteen days after admisison although she should have had the benefit of further hospital

care. The pernicious anemia evidently of fairly long standing had been overlooked as the background of this patient's mental disturbance.

Another group of conditions which have been fairly common in our experience are those cases of cardiac disease in which a psychosis was prominent. The type of mental illness has varied except that depression has been the most constant finding. Two of the cases which I recall were ones of chronic myocarditis and the other was a sub-acute bacterial endocarditis. In all of these, depression was a prominent symptom. I relate here a case of chronic myocarditis with depression and attempted suicide.

F. M., white, male, married, age 45, admitted to the medical service October 31, 1930. He was under observation for pulmonary tuberculosis and a decompensated heart. His mental symptoms apparently had existed for a month prior to admission, as he heard voices in the cellar. These symptoms became more pronounced after admission, he developed persecutory delusions, and finally on December 2, 1930, in a period of confusion and despondency, he attempted suicide by cutting his throat. He was immediately transferred to the psychopathic department, where his psychosis subsided with the improvement in his cardiac condition and he was discharged as improved from this on March 1, 1931. He had made a complete recovery from his mental illness.

This case illustrates very well that the physician should not treat as insignificant the occurrence of mental symptoms in his cardiac cases particularly. I have heard physicians laugh at the paranoid symptoms of some of their patients, which I feel was simply a matter of ignorance, as we not infrequently see reports in the newspapers of physicians who have been killed by this type of patient. Psychiatry, to the average physician then, should prove to be a matter of practical importance.

In spite of the educational program which has been going on now for years to remove the stigma from mental disease, this is still present and the prejudice exists in the minds of the larger proportion of our population. We might consider lightly the commitment of a patient to a mental hospital but it always proves to be a shock to the patient's relatives. This is true even of patients sent in to our psychopathic department, where the atmosphere is kept as free as possible from such terms as insane, and so forth, and where we admit a great many patients who are not only not insane but suffering from no other type of mental abnormality. We should feel some hesitancy then in sending one of our patients to even a psychopathic hospital if there is any way in which this can be avoided. The group of cases where we would particularly apply this advice is in those who are suffering from a chronic disease and constantly develop what I prefer to call a terminal psychosis. This seems to come on near the end and in a great many cases is due to a terminal uremia. The patient usually does not live over a few days but the family never recovers from the supposed stigma of having had one of its members die in a mental hospital. It does seem a little unfair to them that they should be given this added psychological insult when in most cases the patients soon go into a coma and are not helped by hospital care.

One case in particular that I recall is that of G. M., male, white, married, 73 years of age, who was admitted January 7, 1931, with the statement that he had failed rapidly during the past year, had been weak in his legs, suffering from loss of memory, confusion, talked incoherently, and recently had become excited at night. On admission, he was in a comatose condition, was totally inaccessible and was only noisy the night after admission, going rapidly back into his comatose condition and dying three days after admission. The postmortem examination revealed a marked nephritis with uremia.

In view of our findings in these cases, I believe that this type of patient should be given twenty-four to forty-eight hours additional stay at home to determine whether his condition is terminal or whether it will be prolonged.

The last group which I will include in this discussion is that of psychosis with cerebral arteriosclerosis. This condition does not belong with the group of psychosis with somatic disease but because of its frequent occurrence in connection with somatic conditions, I believe that it is worth while for the physician to be able to recognize some of its manifestations. In reviewing our records, I find that practically all of our cases of psychosis with cerebral arteriosclerosis were also suffering from one or more concomitant physical ailments. This is to be expected since it occurs in individuals past middle life when other organs are also on the decline. It simply means that nearly every old person who is being treated for a physical disease should be watched for evidence of cerebral arteriosclerotic complications. These occur in the form of headache, dizziness, and what is unmistakable in a non-toxic patient, periods of confusion. Its presence should always lead to a guarded prognosis and even in the absence of frank symptoms, the ophthalmoscope gives us a very good indication as to its presence and degree. It is a condition which the general practitioner should always bear in mind, in the treatment of patients past sixty, as a factor which might very well complicate other illnesses sooner or later.

One could go on at length with a discussion of these conditions and their relation to the physician in general practice. Some of them are quite interesting and unusual but we have not time here to include all of the group. It is unfortunate that psychiatry as it is taught in medical school does not pay more attention to the individuals mind as it is affected by physical ailments. This part of psychiatry needs to be developed and I feel that this will be accomplished by the study of such cases as I have reported rather than by a theoretical consideration of the subject.

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RHODE ISLAND MEDICAL SOCIETY

Meets the first Thursday in September, December, March and June

H. L. BARNES	*President*	Wallum Lake
N. D. HARVEY	*1st Vice-President*	Providence
CHAS. S. CHRISTIE	*2nd* " "	West Warwick
J. W. LEECH	*Secretary*	Providence
J. E. MOWRY	*Treasurer*	Providence

DISTRICT SOCIETIES

KENT

Meets the second Thursday in each month

WILLIAM H. DYER	*President*	Apponaug
J. A. MACK	*Secretary*	West Warwick

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Meets the second Thursday in each month

D. P. A. JACOBY	*President*	**Newport**
ALEXANDER C. SANFORD	*Secretary*	**Newport**

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Meets the third Thursday in each month excepting July and August

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Meets the second Wednesday in January, April, July and October

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R. I. Ophthalmological and Otological Society—2d Thursday—October, December, February, April and Annual at call of President. Dr. F. W. Dimmitt, President; Dr. N. A. Bolotow, Secretary-Treasurer.

The R. I. Medico-Legal Society—Last Thursday—January, April, June and October, Dr. Fenwick G. Taggart, President; Dr. Jacob S. Kelley, Secretary-Treasurer.

EDITORIALS

SUNLIGHT

The bulbs of tulips, potatoes, or even of onions, in a moist and warm, but dark cellar, will sprout and send out shoots of sufficient size but pallid and unhealthy in appearance, and they do not blossom. If artificial light is applied to these imprisoned plants, they improve in appearance and may produce blossoms, but their condition does not equal that attained in their natural *habitat* of summer sunshine.

A majority of the human race now passes its life under circumstances very similar to those which produce such pallid, unhealthy growth in the vegetable world. Confined in buildings which are impervious to the ultra-violet rays of the sun and in clothing which deprives the body of most of their beneficial effects, humanity rears a sickly progeny which medical skill barely succeeds in preserving.

The beneficial effects of sunlight are varied. The ultra-violet rays have the greatest chemical effect. They render cholesterol and ergosterol chemically active and efficient in prevention of rickets. They inhibit the growth of all pathogenic bacteria and

destroy many. Finsen assumed that the beneficial effect of light in tuberculosis was due to this germicidal action, but it is now believed that the results are due to a generalized chemical blood reaction. Otto Warburg has shown that the combination of carbon monoxide with hemoglobin is disintegrated by exposure to light and that the blue rays of the spectrum are most efficient for this purpose. From this observation, exposure to sunlight or to artificial blue rays should be a valuable treatment for carbon monoxide poisoning. If light rays can break down this combination of hemoglobin, which is so stable that it is called irreversible, it is likely that they powerfully affect blood chemistry in other ways. It is certain that light is effective in the manufacture of the red blood cells.

Our habits as to housing and clothing are so firmly settled by generation-old religious and social custom that we cannot hope to change them. For a few hours, at the seashore, our bodies may acquire the benefit of sunlight. In general, we can do no more than realize that sunlight is essential to the healthy growth of the body.

BRAIN STUDY

Clinical neurological studies, particularly those of the brain, have been less productive of information than studies of about almost any other part of the human body. The slow progress in acquiring data has been, in part, due to a lack of technical skill except by a very few individuals who have done monumental work. The chief reason, however, has been a lack of understanding first of the anatomy of the brain and second of the physiology.

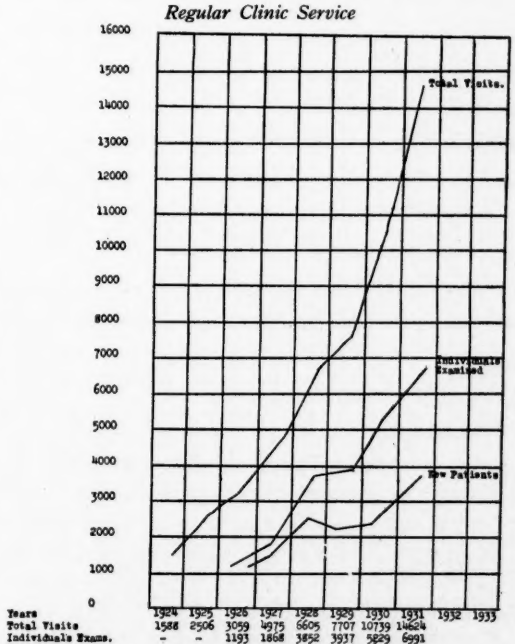
A survey of the titles of the literature of the subject for the past decade indicates a renaissance in the study of brain anatomy and this is a most hopeful condition. The origin and terminations of fibre tracts are being subjected to a more careful scrutiny. Soon the masses of isolated facts will be brought into relationship with each other and will assume a definite and intelligible form. The era of rational clinical progress in brain diseases will then be under way.

EYE SIGNS IN DIAGNOSIS

There was a time, and that not so long ago, when the study of diseases of the eye was considered a well defined specialty; a very important specialty, to be sure, but one having little or no direct connection with diseases of a more general nature. Little by little this fallacy has been given up, and we now realize that the medical man who can avail himself of the information which may be obtained from the eyes thus obtains great help in the diagnosis of many obscure conditions, and in the rational handling of many of the more common affections. An interesting proof of this changed attitude is evident in the offer of a premium by the Trustees of the Fiske Fund for the best essay on the subject, "The Value of Ocular Signs and Symptoms in the Diagnosis of General Disease." In making possible the award of such a premium, Dr. Fiske's object was, primarily, to stimulate productive work on the part of the members of the Society. Several of our members are amply qualified by training and special work in this field to contribute greatly to our knowledge by timely dissertations on this subject. It is to be hoped that this contest will be productive of an essay as informative and authoritative in this field as was last year's essay in the field of anesthesia.

ANNUAL REPORT OF THE PROVIDENCE TUBERCULOSIS LEAGUE

Regular Clinic Service



Years	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933
Total Visits	1588	2506	3059	4975	6605	7707	10739	14624		
Individuals Exams.	"	"	1193	1868	3852	3937	5829	6991		
New Patients	"	"	1098	1197	2521	2177	2532	3924		
% Gain on Total Visits	"		57.8	22.06	62.63	32.75	16.6	39.34	36.17	
Total % Gain (1924 to 1931)										820.9

The preceding graph visualizes for you the year-by-year growth of the work of this organization during the past seven years. It will be noted that, during this time, there has been an increase of 820.9 per cent. During the year 1931 the total clinic attendance of all patients, old and new, amounted to 14,624, as compared with 10,739 for 1930, an increase of 3,885, or 37.9 per cent.

The economic depression, judging solely from the increased numbers, has had little or no effect on the volume of the work, as this year's increase is not up to the average for the seven years. However, the present situation reflects itself on the work by the number of new patients, 3,924 during 1931, as compared with 2,332 in 1930, an increase of 1,592, or 68 per cent, and in the ratio of adults to children examined. In 1929 this ratio was three to one; during 1931 the number of adults examined exceeded the number of children by 141.

During the year 6,991 individuals attended the clinic. This number, while it appears small in comparison to the total population of Providence (253,000), yet it shows that one person in every 36 has been examined. A diagnosis of tuberculosis in some form was made in 768 cases, or one case for every nine examined. Among the 768 diagnosed cases there were 266 new pulmonary cases, of which 80, or 37 per cent, were in the first stage of the disease; 104, or 47 per cent, in the second stage; and 37, or 16 per cent, in the third stage, a total, therefore, of 63 per cent still being found with advanced disease on the first examination.

The new pulmonary cases, when giving their history, stated that in their homes there were 849 contacts, of whom about one-third were children and two-thirds adults.

When these numbers of contacts, 3.8 to each case found, are considered, it is easy to understand how the work pyramids from year to year, as an effort is made to examine and re-examine as many as possible of these contacts.

Considering all the contacts examined, 2,538 during the year, 266 secondary cases of tuberculosis were found. In other words, almost 11 per cent of all contacts were found to have tuberculosis, indicating again that it is this group which must be most carefully examined and watched at all times, but more particularly during such trying times as we are passing through, when continued unemployment has resulted in poor housing conditions and a limited supply of food in many homes, two powerful allies of tuberculosis.

Furthermore, the percentage of new cases is higher among adults than among children thus: of 1,339 adults examined, 260, or 18 per cent, were found to have tuberculosis, while among 1,199 children, 44, or 2.9 per cent, were found to have manifest tuberculosis. The greater frequency of tuberculosis among adult contacts, even though it is difficult to bring them in for examination, must be stressed, as they yield the greatest number of secondary cases, while among children, even the 2.9 per cent, manifestly tuberculous, are still six times as numerous as is usually found in the examination of large groups of school children.

Work among the school children has been carried on as in the past years. During the year in the course of our work, 3,719 children have been given the tuberculin skin test and 2,708 individuals X-rayed.

Two new projects were started during the year. The public school department invited us to extend our school work to the high schools. In March this work was begun in the central group and later at the Hope High School. All pupils enrolled were offered the tuberculin skin test and an opportunity to be examined and X-rayed if they reacted to it.

As acceptance was purely voluntary, it is not surprising, in this age-group, that only 804, or 15.76 per cent of the total enrollment, came in for skin test, and that among 240, or 29.85 per cent, who reacted, 240, or 100 per cent, came in for examination and X-ray. Among those examined and X-rayed, five pulmonary cases, or 2.8 per cent, were found.

With the opening of Brown University in the fall, we were asked by the medical department to repeat the work at both the men's and women's colleges. This is being done. With the single exception of the examination of contacts, this is a most important development in the field of prevention, as it offers an opportunity not alone to examine and to find the disease in its earliest stages, among an age-group otherwise almost impossible to reach, but to inform these young people of today (many of whom will be our leading citizens a few years hence) of the tuberculosis work carried on in the community, that they may be in a better position to evaluate and support the work of the future.

This year the school department proposes to extend the work to the junior high schools, eventually

working out a program that will cover the all-important years of development and assure each pupil an opportunity, at intervals, for examination and X-ray. This is an ambitious program but, if carried out, will prove to be well worth while.

At Lakeside, due to a combination of circumstances, the numbers cared for this year were not as great as we had anticipated, nevertheless, we feel that this year has been a successful one. The best means that we have of measuring the results and value of this work lies in a check-up of the children several months after discharge. Certainly a much higher percentage are now found to be in good physical condition than were found during the days of the two-weeks or summer vacation plan. This, it would seem, justifies the policy of taking fewer children, basing the length of stay of each individual child upon its general condition, home surroundings, and the progress made.

With the purchase of new X-ray equipment for the League it was voted, with the consent and approval of the Budget Committee of the Community Fund, to install the old equipment at Lakeside. Permission was granted and we shall now be able to carry on, throughout the year, this necessary part of the work, without transporting back and forth, at a considerable expense, the mobile X-ray unit purchased for us last year by friends of the organization, for use in the schools. The details of the work done at Lakeside are given in Miss Murray's report.

Any report with an entirely optimistic outlook in these times seems out of place. While it is true that the mortality from tuberculosis has continued to decline, due in a great measure to increased opportunities for early diagnosis, to more effective medical and surgical treatment, and the greater use of our hospitals and sanatoria, it cannot be said, with approximately 40 new cases of tuberculosis appearing each month, that prevention is effective, even if belated costly treatment is more successful.

In the home and at their working places these new cases first appear. It is, therefore, in the home that the visiting nurses' work is all-important in searching out new cases and preventing the spread of infection, but their numbers must be adequate to cover the field, otherwise many life-saving opportunities will be lost.

At a time when the economic depression might have most serious results upon the general tuberculosis situation, it is regrettable to find that, during the year just past, there should have been a marked diminution in the number of home visits to tuberculosis cases and their families. During the year 1931 the total home visits numbered 15,389, as compared with 23,044 during 1930, a reduction of 7,655 visits.

The net amount, $1,238.55, received from the Christmas seal sale was somewhat disappointing, as it had been anticipated that the sale would be carried on through the schools at a minimum expense. The school committee voted unanimously to resume the sale of seals through the schools but found, at the last minute, that they were in conflict with a state law prohibiting this.

The time was then too short to organize volunteer workers. Booths in the down-town and East Side postoffices, Hospital and Industrial Trust Buildings, with paid workers, accounted for the major portion of the amount received, although the volunteer sale by Gladding's, Shepard's, the Boston Store and the Outlet Company was the largest in the many years in which they have co-operated with us. The nurses of the Providence District Nursing Association, the Rhode Island, the Charles V. Chapin, the Lying-In and Butler Hospitals, did their fair share. The Family Welfare Society, in addition to selling seals, co-operated in selecting from among their clinetele persons to sell seals on a commission basis. We were enthusiastic over the plan as one of mutual benefit, but it met with the most indifferent success. A number of students working their way through Brown University were fairly successful. Our disappointments in the seal sale of 1931, we feel, will be forgotten as, with the assurance of Dr. Stoddard that the school children will again resume the sale of seals in 1932, success is assured in advance. To all of those who have aided in any way, we take this opportunity to publicly acknowledge our thanks.

Again it is a pleasure to acknowledge our thanks to the Providence Community Fund for their sympathetic understanding and willingness to aid the work in every way possible. This year, when an opportunity came to purchase, at a greatly reduced price, X-ray and other needed equipment, we were allowed, on short notice, as time was a factor, to draw from Lakeside's unexpended balance $1,500 for the purchase of this equipment. Under the old method of financing this would have been impossible and the opportunity would have been lost.

In return, by the practice of the most rigid economy, it is gratifying to report, that with the in-

creased volume of work handled, we have come to the end of the year with no deficit in the League's budget, and an unexpended balance of $975 in the Lakeside budget. The details of receipts and expenditures are incorporated in the treasurer's report.

Our new quarters in the Francis Carpenter Memorial Building exceed our fondest expectations. The housing of all agencies under one roof has increased the efficiency of each agency. The donors, through their generosity, have raised the standard of social and welfare work in the whole community.

This report would not be complete without an expression of deep appreciation to the physicians of Providence for their co-operation in sending patients to the clinics in ever increasing numbers. This year they have sent 1,100 or approximately one-sixth of all the individuals examined. This is the kind of co-operation that every tuberculosis worker hopes for but rarely receives.

Two bequests have come to us, one of $500 from the estate of Emily J. Anthony, and one of $5,000 from the estate of Henry W. Budlong, left in trust to the Family Welfare Society, the income from which is to be used for the work at Lakeside.

On behalf of the Executive Committee, I wish to thank all those who have in any way aided the work of this organization. I personally wish to thank the Executive Committee for their continued confidence and support, the nurses who have staffed our clinics and the League's workers who, in the face of added burden incident to the increased volume of work, have carried on in the best spirit possible.

ABSTRACT OF PAPER*

Entitled

Agranulocytic Angina and Allied Diseases

By Dr. Henry Jackson, Jr.
Boston, Mass.

There are a variety of conditions associated with an extreme lowering of the white blood count and particularly the polymorphonuclear count. All of these conditions carry with them a very grave prognosis and the chief problem of treatment is to raise the white count, in order that the body may not be robbed of its defense mechanism. The chief causes of this malignant neutropenia are benzol poisoning, overwhelming sepsis and agranulocytic angina. In this latter condition there are ulcerative lesions of the various mucous membranes, high fever, extreme leukopenia and death in about 80% of the cases. The treatment of these conditions has hitherto been unsatisfactory. It has long been known that various derivatives of nucleic acid will raise the white blood count. Fifty-one cases of malignant neutropenia have been treated by us by the intramuscular or intravenous injection of nucleotide, K96. The results, so far, have been very promising. Seventy per cent of the patients who have been adequately treated have recovered. The response, when there is one, consists in a fall in temperature and a gradual, but steady, rise in the white count beginning about the fourth or fifth day. There is coincident healing of the lesions. Some cases show no response whatsoever. The drug should be administered continuously and in full doses. At the present time, this method of treatment appears to offer the greatest promise in this condition. Occasionally a rather severe reaction occurs following the treatment.

Finally, the necessity of doing careful white counts in all obscure infections is to be pointed out.

*Paper read before the Rhode Island Medical Society, March 3, 1932.

SOCIETIES

Rhode Island Medical Society

The regular quarterly meeting of the Rhode Island Medical Society was held Thursday, March 3, 1932, at the Medical Library Building, and was called to order at 4 P. M. by the President, Dr. H. L. Barnes.

The Secretary read the minutes of the December meeting, special meeting of the House of Delegates held February 2nd, and the regular meetings of the Council, and the House of Delegates held on February 17th.

The following program was presented:

1. "Demonstration of the Artificial Larynx," Dr. D. L. Lynch, Boston, Mass. Dr. Lynch explained the construction of the artificial larynx and showed the actual operation upon a patient who had his larynx removed.

2. "Agranulocytic Angina and Allied Diseases," Dr. Henry Jackson, Jr., Boston, Mass. Discussion by Dr. Lawson and Dr. Fulton.

3. "The Interposition Operation in the Treatment of Uterine Procidentia" (illustrated by lantern slides), Dr. Louis E. Phaneuf, Prof. Gyn., Tufts Medical School. Discussion by Dr. Keefe and Dr. Brackett.

4. "The Treatment of Acute Poliomyelitis with Convalescent Serum," Dr. Dennett L. Richardson, Providence. Discussion by Dr. Harris and Dr. Barnes.

Following the meeting a collation was served.

Respectfully submitted,

J. W. LEECH, M.D., *Sec'y.*

PROVIDENCE MEDICAL ASSOCIATION

The regular monthly meeting of the Providence Medical Association was held at the Medical Library, 106 Francis St., Monday evening, March 7, 1932, at 8:50 o'clock. The records of the last meeting were read and approved. A letter from Dr. Chapin was read, thanking the Association for the Appreciation. A memorial to Dr. Wm. Fred Williams was read, and it was voted to spread it on the records, send a copy to the RHODE ISLAND MEDICAL JOURNAL and one to his son.

The first paper of the evening was read by Dr. Herbert G. Partridge on the Library of the Rhode Island Medical Society. He reminded us that a very comprehensive library was here, from which the bibliography of medicine could be traced from the oldest dated, 1501, fifty years after the invention of movable type. He told of the more important and interesting books and something of some of the writers. The paper was discussed by Drs. Hammond, Miller, Chase, Mowry, Kelley and Partridge.

Dr. Florence M. Ross, Professor of Health Education, Rhode Island College of Education, spoke on "Physiology as Taught by Moving Pictures." Two series of films both of actual gross and microscopic anatomy and moving diagrams demonstrated in a very graphic manner the circulation and digestion. The paper was discussed by Drs. Messinger, Kelley, Appleton and Ross.

The meeting adjourned at 10:30 P. M. Collation was served. Attendance, 60.

Respectfully submitted,

PETER PINEO CHASE,
Secretary.

LIBRARY NOTES

The following books have been added recently to the main collection of the library of the Rhode Island Medical Society:

Anatomy

Gray, Henry—Anatomy of the Human Body —Edited by W. H. Lewis, 22d edition, 1930.

Bacteriology

Hiss ans Zinsser—Bacteriology—6th edition.

Cancer

Meyer, Willy—Cancer—1931.

Diagnosis

Cummer, C. L.—Clinical Laboratory Methods —3rd edition, 1931.

History of Medicine

Packard, F. R.—History of Medicine in the United States—2 vol., 1931.

Internal Medicine

Draper, George—Disease and the Man—1930.

Gager, L. T.—Hypertension—1930.

Joslin, E. P.—The Treatment of Diabetes— 4th edition.

Willius, F. A.—Clinical Electrocardiograms— 1929.

Neurology

Jelliffe and White—Diseases of the Nervous System—5th edition, 1929.

Ranson, S. W.—Anatomy of the Nervous System—4th edition, 1931.

Obstetrics

Williams, J. W. — Obstetrics — 8th edition, 1931.

Orthopedics

Coburn, A. F.—The Factor of Infection in the Rheumatic State—1931.

Jones and Lovett—Orthopedic Surgery—2nd edition, 1929.

Pathology

MacCallum, W. G.—Pathology—4th edition, 1928.

Pharmacology

Cushny, A. R. — Pharmacology and Therapeutics—9th edition, 1929.

Physiology

Howell, W. H.—Textbook of Physiology— 11th edition, 1930.

Pediatrics

Holt and Howland—Diseases of Infancy and Childhood—9th edition.

Surgery

Campbell, M. F.—Infections of the Kidney—1931.

DaCosta, J. C.—Modern Surgery—10th edition.

Homans, John—Textbook of Surgery, 1931.

Sachs, Ernest—The Diagnosis and Treatment of Brain Tumors—1931.

Skin Diseases

Sutton, R. L.—Diseases of the Skin—8th edition, 1931.

Therapy

Kovacs, B.—Electrotherapy and the Elements of Light Therapy—1932.

The Davenport Collection has recently acquired the following books:

Collins, Joseph—The Doctor Looks at Life and Death—1932.

DaCosta, John Chalmers—Selections from the Papers and Speeches of John Chalmers DaCosta—1931.

Eckstein, Gustav—Noguchi—1931.

Reid, Edith Gittings—The Great Physician: A Life of Sir William Osler—1931.

HOSPITALS

Memorial Hospital

A regular meeting of the Memorial Hospital Staff Association was held on February 4, 1932.

In the absence of the regular officers, the meeting was called to order at 9:05 P. M. by Dr. James L. Wheaton. On motion, duly seconded, Dr. James L. Wheaton and Dr. Jacob Greenstein were elected to act as president and secretary respectively for the evening.

Minutes of the preceding meeting were read and approved.

Dr. E. A. Shaw read a very interesting and instructive paper on "Management of Head Injuries," stressing the importance of injury to the brain and soft parts with resulting increased intracranial pressure. Following the initial treatment for shock in the case of head injury, primary radical surgery was indicated with:

1. Condition of foreign bodies.
2. Hemorrhage from middle meningeal artery.
3. Depressed fractures.

For the treatment of increased intracranial pressure, radical surgery is indicated only as a last resort with the reliance placed primarily on dehydration and lumbar puncture.

This paper was discussed by Dr. Harvey B. Sanborn and Dr. William P. Davis.

Dr. John F. Kenney presented an unusual case of coma of five days' duration with recovery due to allanol poisoning. He then presented an illustrated report on the Ascheim-Zondek test in pregnancy with motion pictures of the procedure and technique.

The committee previously appointed by Dr. Charles H. Holt and consisting of Drs. James L. Wheaton, Meyer Saklad, and Jacob Greenstein, to act as a nominating committee for the selection of officers for 1932, reported in favor of re-electing the present incumbents:

Charles H. Holt., M.D., President.
Elihu S. Wing, M.D., Vice-President.
Stanley Sprague, M.D., Secretary.
Robert T. Henry, M.D., Treasurer.

On motion, duly seconded, these officers were elected to serve for the Memorial Hospital Staff Association for 1932.

The members present at the meeting were: Drs. Bertini, Benjamin, Davis, Fox, Goldberger, Greenstein, Happ, Hanley, Harris, Hacking, Henry, Jones, Kechijian, Kenney, McCurdy, Marshall, Miller, Moor, Petrucci, Saklad, Sanborn, Sargent, Shaw, Sprague, Touzjian, Turner, Vandale, Wheaton, Winkler, O'Neil, Murphy, and Platt.

Meeting adjourned at 10:20 P. M.

Respectfully submitted,

Jacob Greenstein, M.D.,
Secretary pro tem.

Providence Lying-In Hospital

The forty-eighth annual meeting of the Providence Lying-In Hospital was held at the hospital February 11, 1932, at 12 noon. The following were re-elected to office: William L. Hodgman, President; Dr. Halsey DeWolf, Vice-president; G. Maurice Congdon, Treasurer; Edgar W. Shaw, Secretary. Reports were submitted by Edgar W. Shaw, Dr. Harmon P. B. Jordan, Superintendent of the Hospital; Dr. Edward S. Brackett, Chief of Staff; Miss Alice M. Bowlby, Superintendent of Nurses, and officers of the Board of Lady Visitors.

Dr. Jordan reported that 2,621 patients were

admitted during the year and that 2,410 infants were born at the institution during 1931. Forty-four per cent of the births in Providence took place at the Providence Lying-In Hospital. The income of the hospital decreased $16,619 or 10 per cent. while expenses decreased $14,021 or 6 per cent. We had an increase in free patients of 62 per cent. Nine hundred seventy-two mothers were entirely free and 476 paid part of the hospital cost. Two thousand fifty-five of the patients treated were born in the United States, while 566 were foreign born.

Dr. Brackett reported in the years 1922-26, the last five years in the old hospital building, 6,091 women were delivered, an average of 1,218 a year, while in the years 1927-31, since the occupancy of the new building on Maude Street, 10,382 deliveries had taken place, an average of 2,076 a year. He also stated that the pre-natal and post-natal clinics have shown an even more rapid growth.

The figures obtained showed that the maternal mortality for Rhode Island was 60 per 10,000 living births. Our combined gross mortality for the last two years was 39 and the corrected mortality 28 per 10,000 living births.

The gross foetal mortality in 1931 was 6.2 per cent and the corrected foetal mortality 4.7 per cent as against 7.1 per cent, respectively, in 1930.

He also declared that a nurses' home will soon be an urgent necessity and that more equipment including X-ray apparatus, dental equipment, and an operating room separate from the delivery department where operations for surgical complications not of an obstetrical nature could be performed.

A buffet luncheon was served folowing the meeting.

St. Joseph's Hospital

The regular monthly meeting of the staff was held Thursday evening, March 10, 1932, ninety members being in attendance. Routine business having been disposed of, Drs. William R. McGuirk and James P. Clune of the Gynecological Service reported an interesting case involving a question of diagnosis. This was a case of a 14-year-old girl with menorrhagia and metrorrhagia, presenting problems of etiology and resisting all forms of treatment. Following this presentation, Dr. Philemon E. Truesdale of Fall River demonstrated, by the use of talking motion pictures, two subjects, namely, "Diaphragmatic Hernia, Its Mechanism, Physical Signs and Surgical Treatment," and "Prolapse of the Uterus, Its Mechanism and Operative Treatment." This was a most interesting exhibit, evoking considerable favorable comment among those present. At the close of the program, collation was served by a caterer, through the kindness of the Mother Superior of the Hospital.

Joseph L. Belliotti, M.D.,
Secretary.

MEMORIAL

Dr. William Fred Williams, a member of this Association, died at his home in Bristol, October 29, 1931, having passed the span allotted to man in a life full of interest to himself and usefulness to others. Born in New York City in 1859, five years later his family moved to Bristol, R. I., where he spent the remainder of a life, full of activity in many directions, medical, educational, religious, political and civic, all bearing upon the well being of his local community.

A graduate of Brown Universitv in the class of 1883 and of the Harvard Medical School in 1889, after practicing a short time in New York City, he returned to Bristol, where he remained one of the outstanding family practitioners for a period of over twenty-five years, when he retired from his profession to devote himself actively to his many other interests.

As state representative and later senator, for many years Chairman of the State Board of Health, a charter member of the first Naval Reserve Company in the state, for forty-nine years on the Vestry of St. Michael's Church, Bristol, and for twenty-two years its Senior Warden, Dr. Williams gave to his state and to his community a lifetime of able, conscientious and devoted service. As a physician he was known and appreciated by all of the older and many of the younger members of our Association and, in the same role, dearly loved and valued by his Bristol friends and patients. The town is poorer by his going, while the profession and this Association has lost a trusted and loyal member.

Our sincerest sympathy is expressed to Dr. Williams' son, William F. Williams, Jr., President of the Bristol Town Council, who is now following worthily his father's example as an active worker in the affairs of his community.

RESOLVED: That this Association expresses sincere regret for the loss of its fellow member, Dr. William Fred Williams; that a copy of these minutes be spread upon the records and another copy sent to his son, William Fred Williams, Jr.

HALSEY DEWOLF, M.D.
CHARLES V. CHAPIN, M.D.
EDGAR B. SMITH, M.D.

LETTERS TO THE EDITOR

March 11, 1932.

Dear Mr. Editor:

Your pathetic plea for a Bronchoscopic Clinic stirs us.

Sir, the Rhode Island Hospital has had a bronchoscopic equipment for twenty years where hundreds of foreign body cases have been successfully treated. We have, to be sure, refrained from giving the press the news of our frequently miraculous recoveries, but I can assure you that at least four of the visiting laryngologists and assistant laryngologists of our staff can proudly exhibit specimens ranging from peanuts to pennies and diaper pins to diamonds.

I can also assure you that aside from the complete and expensive Endoscopic outfit at the Rhode Island Hospital there are a few of the Providence laryngologists owning complete sets of their own.

Emergency or properly diagnosed foreign body cases in the field of larynx, pharynx, bronchi and esophagus can receive very early treatment at our well equipped hospital. No need of going to Boston or Pittsburgh or Brockton or other localities where the advertising is broader.

RHODE ISLAND LARYNGOLOGIST.

BOOK REVIEWS

"INFECTIONS OF THE KIDNEY." Merideth F. Campbell, M.D., F.A.C.S. Harper Brothers, Publishers.

Dr. Campbell's work on infections of the kidney appears in the so-called "Harper's Medical Monograph Series," and is written by a urologist for the general practitioner. It may be added that the urologist will also find it enlightening.

Present day methods of diagnosis and treatment are outlined and supplemented by excerpts from the personal experience of the author. Urologic diagnostic procedures, considered as more or less standardized by the specialist, are fully outlined and brought up to date.

The chapter on renal infections in infancy and childhood as well as the consideration given to the embryology of the kidney with its effects on clinical futures is especially helpful and shows the influence of the author's extensive experience in dealing with urologic problems in childhood. The illustrations, while done in line drawings, are numerous and illustrate accurately the subject matter in the text.

The book is a reliable and concise work on kidney infections and it is interestingly written. It will serve to crystallize vague ideas regarding kidney infections.

"ONE HOUR OF MEDICAL HISTORY." Compiled by Benjamin Spector. The Beacon Press, Inc., Publishers.

This is a compilation of short addresses, given by students in a pageant form before Tufts College Medical School, concerning the lives of ten great figures of medicine. It is an attempt to make the history of medicine human and interesting.

At the end of the book Ballard has a short chapter on some of the writings of the subjects. This chapter is of considerable interest to physicians.

The book is well printed, short, entertaining, and instructive.

"SIMPLE LESSONS IN HUMAN ANATOMY." Harvey. American Medical Association, Publishers.

This admirable volume might be termed a handbook of anatomy for the laity. It is a compilation of articles published in *Hygeia*, the purpose of which were "to make the truths of anatomy generally available and intelligible."

The subject matter is comprehensive, and deals not only with gross and microscopic anatomy, but also with embryology and physiology. Each important structure and system of the adult human body is described and discussed. The treatment, however, is not dry or didactic and the style is simple and direct. Structures are not described in a cold, ob-

jective fashion, but are pictured as living, changing and ever useful and purposeful parts of a smoothly functioning mechanical whole. We believe that Professor Harvey, in these fascinating talks, has provided a much needed source of sane, comprehensible, yet scientific information, in a day when unprincipled advertising and quackery have disseminated so many false conceptions among the gullible and trusting public. He has demonstrated the rare art of making difficult matters appear easy and of expressing profound and complicated ideas simply. Medical men, as well as the uninitiated, will find this book a store of useful information, written with a simplicity of style that is very unusual in the scientific field.

"The New Medical Follies." Dr. Maurice Fishbein. Boni & Liveright, Publishers.

The examples of quackery in "The New Medical Follies" are illustrative of types of delusion and chicanery rather than isolated examples. When a doctor realizes the extent of trickery practiced on the public, as he does after reading "Medical Follies," he will take a more active and combative interest in the matter.

The reader will enjoy many a good laugh at the expense of the charlatan in the stinging observations of the author, who makes masterful use of ridicule. The subject is of interest in itself and the presentation increases that interest.

The book appeals strongly to doctors. It also entertains and instructs the laity.

Doctors and Specialists. By Morris Fishbein, M.D. The Bobbs-Merrill Company, Publishers.

Published nearly two years ago, Dr. Fishbein's slim volume of satirical sketches is still the funniest book about physicians in the English language. Page after page and chapter after chapter, the quack-smiting editor of *The Journal* and *Hygeia* pictures various types of medical men, from the old-time general practitioner with his horse and buggy, his hirsute encumbrances, and his shotgun prescriptions, down to the ultra-modern, more-than-scientific laboratory enthusiast whose "crowning achievement . . . . is to get his name hung on to a test which makes him a medical immortal." In all of his characterizations he achieves sufficient verisimilitude to make his subjects easily recognizable as the prototypes of the men who make up the medical profession today; yet in all there is enough distortion to make the picture impersonal and withal highly amusing. To those familiar with its context, any reference to this book invites quotation from it, hence

> "The obstetrician is a medically educated night-watchman."
>
> "Neurology is a system of diagnosis with one prescription—and that is rest."
>
> "Urology is a scientific specialty largely devoted to repairing the ravages of a rapid life."

are some of its more frequently quoted aphorisms.

But pleasant and facetious as are the author's caricatures of his professional brethren, his sarcasm is more biting and the friendly spirit of give and take vanishes when he attacks those perennial targets of his denunciation and ridicule, the cultists and quacks, here typified by the Christian Science healer and the chiropractor. The former he uncompromisingly dubs an "extraordinary form of self-deception"; the latter he characterizes as "producing in the patient a sense of well being through the power of suggestion." Yet even in his arraignments of these enemies of medical progress, there is not the least trace of bitterness or vituperation; and so diverting are the author's witticisms and anecdotes that these chapters make good reading, even for a chiropractor.

Published and annotated for the general public, the book's one weakness, if it has any, is that all of its humor is distinctly medical in character; and many of its nuances and not a few of its broader allusions are beyond the ken of the average layman. To anyone, however, it is eminently worth reading; to the medical man it is worth owning, for every re-reading of it reveals fresh bits of sound wisdom and helpful criticism tucked away among its friendly jests.

MISCELLANEOUS

VENTILATION

In 1913, the governor of the State of New York appointed a state commission on ventilation, which published its report in 1923. At that time, a reor-

ganization of the state government failed to provide for a continuance of the commission. It was then reconstituted on the invitation of the Milbank Memorial Fund as the New York Commission on Ventilation. This commission began its work in 1926, and its final report has just become available.[1] The report is of great significance since it indicates that many municipalities and states are now attempting to conform to obsolete regulations requiring the installation and maintenance in school buildings of systems of mechanical ventilation which have been shown to be not only unnecessary but perhaps even a menace to health. Twenty states[2] require that there be an air supply of 30 cubic feet per minute for each person, a condition that can be obtained only by mechanical ventilation involving the use of fans. Such systems are not only costly but may produce drafts and overheating.

The point of view regarding ventilation has changed during the past generation. It was thought at first that the only bad air was that which contained more carbon dioxide than it ought to, and less oxygen than outside air. The modern point of view is that ventilation is required primarily to remove excess heat given off by the human body, and thus to maintain a comfortable atmosphere. Except where air contains poisons or dust due to imperfect combustion or industrial processes, the problem of ventilation is a physical rather than a chemical problem. Moreover, in small rooms or in large auditoriums containing many people, the air may become unpleasantly contaminated by odor. Thus, a certain amount of movement of air is necessary for suitable ventilation. The conclusions of the New York Commission on Ventilation state succinctly the present views concerning factors involved in good ventilation:

1. The major objectives of schoolroom ventilation shall be the elimination of heat from the body surface without the production of objectionable drafts. This means the maintenance of a room temperature of 65 degrees Fahrenheit in corridors, gymnasiums and shops; of 75 degrees in swimming pools and adjacent dressing rooms, and of 68 degrees in all other occupied rooms.

2. The avoidance of overheating is of primary importance for the promotion of comfort and efficiency and the maintenance of resistance against disease. Sources of direct radiation, therefore, shall be so designed or protected as to prevent overheating of persons in adjacent seats.

3. All classrooms shall have at least 15 square feet of floor space and 200 cubic feet of air space per pupil and shall have a system of heating and ventilation which shall provide means of air supply and exhaust capable of avoiding unpleasant odors and of avoiding, without chilling drafts, an increase of room temperature above 68 degrees Fahrenheit.

4. Such ventilation shall be accomplished by any means which will attain satisfactorily these specified results. For the average school, favorably located, window-gravity (open-window) ventilation seems to be the method of choice on grounds of comfort and economy.

5. Every schoolroom used for instruction, study, assembly, and physical recreation shall be provided with at least one thermometer of a grade that will give a reading accurate to within one degree Fahrenheit. The thermometer should be so located as to give a representative reading of temperature at the breathing place of the pupils.

6. Such an approved system of ventilation shall be maintained in operation whenever school is in session.

Legislation is almost invariably behind science in its attempts to provide suitably for public health and safety. The development of knowledge or of new technic and apparatus may not be applied under legal requirement before several years, sometimes not even for a decade. New schools are constantly being erected, and authorities are expending considerable sums to meet legal requirements which are scientifically obsolete. In a period of national economy it would seem to be desirable that legislators attempt, as soon as possible, to free taxpayers from such unnecessary expenditure by revocation or amendment of existing legislation.—*Jour. A. M. A.*, Nov. 14, 1931.

1. School Ventilation. Final Contribution of the New York Commission on Ventilation, C.-E. A. Winslow, chairman, Rufus Cole, Dwight D. Kimball, Frederic S. Lee, George T. Palmer, Earle B. Phelps and Edward Lee Thorndike; Bureau of Publications, Teachers College, Columbia University, New York City, 1931.

2. The twenty states that still retain regulations concerning ventilating devices based on obsolete notions are Florida, Idaho, Illinois, Indiana, Maine, Massachusetts, Michigan, Montana, New Jersey, New York, North Dakota, Ohio, Oklahoma, Pennsylvania, South Dakota, Texas, Utah, Vermont, West Virginia and Wisconsin.